

INVERSE SKEWING OF THE LYMPHOCYTE REPERTOIRE  
FOR THERAPY AND PREVENTION OF DISEASE

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Abstract Of The Disclosure

Methods are provided for reducing the number of  
HIV-infected cells or HIV infection-susceptible cells of a  
10 host. Therapeutically this is achieved by exposing the cells  
to a V region selective element (VRSE) which binds to T cell  
receptors (TCR) of a V region defined family (VRDF) that is  
preferentially infected with HIV. The therapeutic VRSE can be  
an antibody which binds to the VRDF and is capable of causing  
15 cytotoxicity of infected and infection-susceptible cells,  
either alone, in conjunction with host factors, or fused to a  
toxin. The number of HIV-infection susceptible cells can be  
reduced prophylactically and in some circumstances  
therapeutically by immunization with an antibody or T cell  
20 receptor that induces an immune response that includes  
antibodies that bind to the TCR of a VRDF associated with HIV  
infection. The latter antibodies inhibit the viability of the  
infected or infection-susceptible cell. Means for diagnosing  
and treating diseases in which there is biasing of the immune  
25 repertoire are also provided, including those circumstances  
where very little may be known about the causative agent or  
the mechanism of pathogenesis. This is accomplished by  
selecting monoclonal antibodies for detecting antibody  
repertoire changes characteristic of a disease, thereby  
30 providing a diagnosis, and perturbing the immune system  
repertoire in the opposite direction to the direction of  
skewing that is characteristic of the disease or condition,  
thereby providing a means of prophylaxis or therapy.

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